

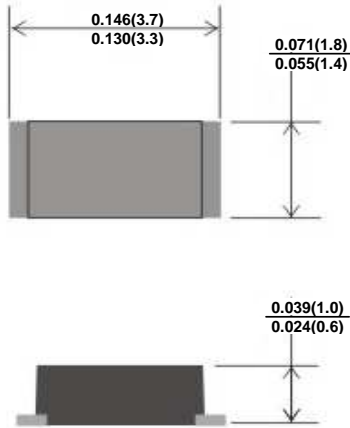


# UF101H THRU UF107H

## SURFACE MOUNT ULTRA FAST RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0 Ampere

### SOD-123FH



Dimensions in inches and (millimeters)

### FEATURES

- ◆ Fast switching speed
- ◆ Surface mount package ideally suited for automatic insertion
- ◆ Low power loss, high efficiency
- ◆ Pb free product : 99% Sn above can meet RoHS environment substance directive request
- ◆ High forward surge current capability
- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0

### MECHANICAL DATA

**Case:** SOD-123FH , Molded plastic

**Terminals:** Solderable per MIL-STD-750 , Method 2026

**Approx. Weight:** 0.0001 ounce, 0.0042 gram

**Standard Packaging :** 8mm tape(EIA-481)

**Polarity :** Color band denotes cathode end



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

PARAMETER	SYMBOLS	UF 101H	UF 102H	UF 103H	UF 104H	UF 105H	UF 106H	UF 107H	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Minimum Reverse Breakdown Voltage	$V_R$	50	100	200	400	600	800	1000	Volts
Average Rectified current at $T_L = 50^\circ\text{C}$	$I_{(AV)}$	1.0							Amp
Non-repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30							Amps
Maximum Forward Voltage at $I_F = 1.0\text{A}$	$V_F$	1.00		1.30		1.70			Volts
Maximum DC reverse current at rated DC blocking voltage $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	$I_R$	5.0 50.0							$\mu\text{A}$
Maximum reverse recovery time (NOTE 1)		50				75			nS
Typical Junction Capacitance (NOTE 2)	$C_J$	15							pF
Typical Thermal Resistance (NOTE 3)	$R_{\theta JA}$	50							$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 ~ +150							$^\circ\text{C}$

- Note:**
1. Reverse recovery condition  $I_F = 0.5\text{A}, I_R = 1.0\text{A}, I_{rr} = 0.25\text{A}$
  2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
  3. Mounted with minimum recommended padsize · PCBoard FR4.



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## RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

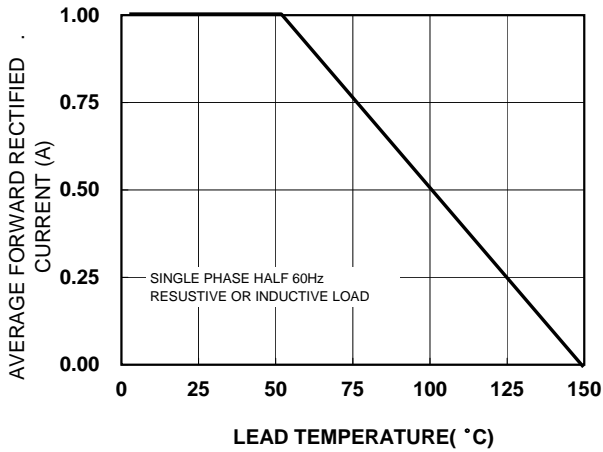


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

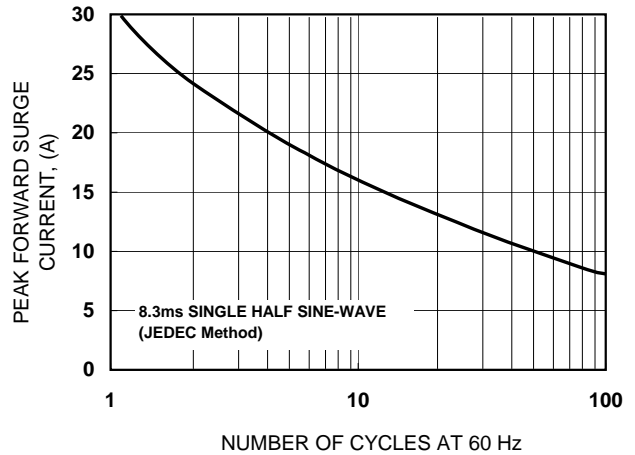


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

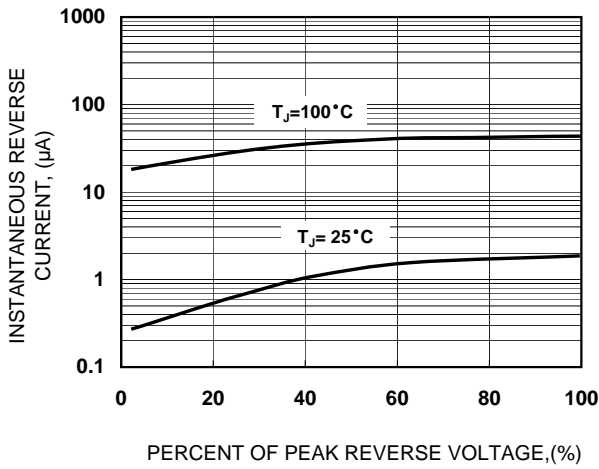


FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

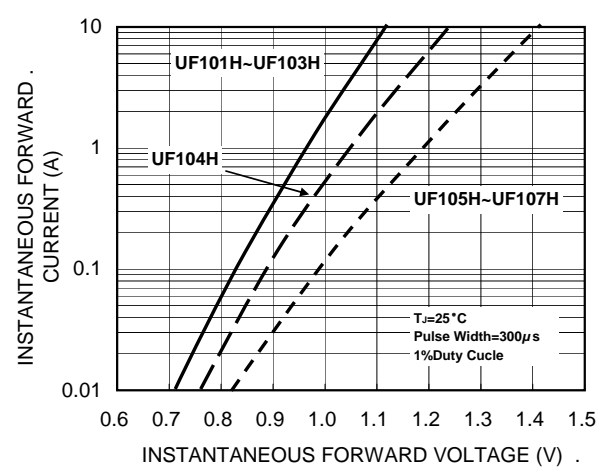


FIG. 5-TYPICAL JUNCTION CAPACITANCE

